

Solar Cooker Final Report

ཉི་འོད་ཐབ་ཀའི་རོགས་སྐྱོར་ལས་གཞིའི་མཇུག་མཐའི་སྒྲན་བྲུ།

for

The German Embassy

འཇར་མན་གཞུང་ཆབ་ཁང་།

Summary

What?	66 solar cookers for Aujia འུ་གྲི་ Village
Beneficiaries?	66 Tibetan households; 430 Tibetans
Cost?	German Embassy = 7,500 RMB; local contribution = 2,500 RMB

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by

དོན་གྲུབ་དབང་རྒྱལ། / Spencer

Tuesday, October 31, 2006

Dear German Embassy,

I'm very grateful for your support and am pleased to report the success of this solar cooker project that improved local people's health, promoted environmental conservation, and means that less work will be required on the part of women and girls in collecting fuel. Many recipients had a per person annual income of only about 300 RMB. Coal for the winter costs about 250 RMB (1 ton). If a family did buy coal, they often lacked money for clothing, paying for children's educational expenses, meeting medical expenses, etc. Furthermore, the village kitchen is smoky and a health hazard. The solar cookers you supported help alleviate these problems. Since much of the cooking and heating can be done on the solar cooker, the firewood people commonly burned during the day can be saved for use in heating the home in winter. Less organic material is collected from the nearby environment.

Sincere thanks for your kind assistance.

Villagers

Introduction of Aujia Village.

Aujia Administrative Village is located near Kanbula ཁམས་ར་ Township, Jianzha གཅན་ཚ་ County, Huangnan མྲ་ལོ་ལྷོ་ Tibetan Autonomous Prefecture, Qinghai རྒྱ་ཁོ་ཕྱོ་ Province, China. It is 50 km from the county capital and 160 km from Xining City, the capital of Qinghai. This village is 2,900 m above sea level and has 96 households (600 villagers). Aujia Village is regarded as one of the most impoverished villages in the whole county. Although it is near a small town, the village itself is not well developed because the condition of the access road is remarkably bad. Also only a few people come to the village to sell things to the villagers. Every family has about 5 *mu* of fields that do not produce reliable yields because of drought. Water is in poor supply, partly due to extensive deforestation that took place during the Cultural Revolution. All the villagers live in flat-floored and decrepit houses.



Aujia Village

Photographs



Mr. Dorji Jacan འོ་རྗེ་རྒྱལ་མཁོན་ (b. 1947) is a respected village elder. Seven people are in his family. Like most village families, when we went to his home we found that most of his family members were out working to earn money. The family does support a university student. Since this family is large, their living expenses are high. The solar cooker, they said, allows them to save firewood during the summer, which they will burn during winter.



Mr. Dalo ལྷོ་ལོ་ (b. 1951) is one of four family members, all of whom are illiterate farmers. His family's annual income is relatively low. His son and daughter-in-law are frequently away from home earning extra income to support the family. Fuel supply is a significant, constant problem. “It's very difficult to get firewood from the mountain forest as we did before, because now it's banned,” Mr. Dalo said.



Mr. Hangzhah རྟམ་གྲགས་ (b. 1967) and his wife are farmers. They have two children. Pictured in the background is some of the firewood the family will use.



Ms. Sonan Deji བསོད་ནམས་བདེ་སྒྲིན (b. 1950) has six people in her family, all of whom are farmers. Since she is no longer young, it is difficult for her to do all the chores when her son and daughter-in-law are away from home. Prior to receiving the solar cooker, she said that she cooked food and boiled water in her smoky kitchen regardless but now, the solar cooker has made her life much easier.



Ms. Xia Mo གཞི་མོ་ (b. 1964) is a farmer. There are two people in her family. She makes her living by doing construction work outside the home and growing grain on her small plot of land. She and her husband are paid little for their unskilled labor and are unable to buy firewood in winter. She confided she now uses the solar cooker to heat water to wash clothing.



Ms. Dimu's བདེ་མོ་ (b.1976) family has four people. Like most of village families, they are all subsistence farmers and have little income with which to purchase clothing and farming tools. Although the family is poor, they support a middle school student.

3. Interviews with Recipients

(1) Mr. Hangzhah དབང་གྲགས་ was born in 1966 and is the present leader of Aujia Village. When we interviewed him he stated that not only do the solar cookers save money previously used to buy fuel, but also provide the opportunity to use the time saved in gathering fuel on other work. He said that before receiving solar cookers, villagers' fuel supply was dependant on wood they took from mountains. This required much time and was dangerous, especially when done at night in winter to evade the forest police. He said, "Now the situation is better because we can save the firewood used to cook food during sunny days to burn in winter so that we needn't go to the forests in winter."

(2) Ms. Dakzhou ལྷག་བྲུག་ (b. 1956) is the only woman in her family. She animatedly told me that before receiving the solar cooker she needed to frequently be in her smoky kitchen when, for example, guests visited her family. She said she coughed a lot at night and was restless. She had to get up early and go collect firewood so that she could cook. After receiving help from the German Embassy she can now boil water and sometimes cook on the solar cooker. The time she spends in her smoky kitchen is less.

(3) Donzhi Hangjay རོན་གྲུབ་དབང་རྒྱལ་ (b. 1955) is the head of his family. He said the solar cooker had helped his family save money and allowed them to spend more time on money-making work rather than collecting wood. He also said that the solar cooker helped increase the money the family had to buy things for his children who are attending school. "Before we received the solar cooker, necessities for our children was not a priority since I needed to make sure my family had fuel when the winter came," he said. "Now my children are happy because I spend money on buying things they require."

(4) Doba རོ་བླ་ (b. 1951) is a respected elder. He said that since his daughters and sons are usually away from home he and his wife need to take care of the family's livestock, clean the house and so on. More importantly, he said they needed to cook for themselves. "A couple like us are older and physically weak. We can't work as much as younger people. These burdens sometimes make us very

tired and even sick. But now, things are much easier since we can cook and boil water on the solar cooker.” He also mentioned that solar cookers protect the forest because people go there less frequently to cut trees.

(5) Hangjay རྟམ་རྒྱལ (b. 1988) said that before receiving the solar cooker he needed to boil water when he was home on weekends because his parents were at work and consequently, didn't have much time to review his lessons and complete his homework assignments. Since receiving the solar cooker, he said that he spends more time on his studies. He also said that he was encouraged to try and help the local community.

4. Activities:

Activities	2006	Participant
Collected local contribution	May 10	Dongzhi Hangjie, village leaders
Bought solar cookers from the factory	May 13	Dongzhi Hangjie
Transported solar cookers to Aujia Village	May 14	Dongzhi Hangjie
Distributed solar cookers, took pictures, got names and signatures	May 15	Dongzhi Hangjie, village leaders, respected elders
Interviewed beneficiaries	June 1	Dongzhi Hangjie
Wrote final report	Sept 5	Dongzhi Hangjie

Selection of Recipients

The village held a meeting. Each village family sent a representative to vote. Before voting, representatives were told that recipients should be selected according to their yearly income, number of the livestock they owned and number of family members.

Aujia Village had two voting group. One was made up of illiterates. The second was composed of literate villagers. The first group voted by raising their hands. The second group voted by writing on a piece of paper. After the voting, the village leader read the names of the recipients. After the recipients were identified, two village leaders and Dongzhi Hanjie visited selected recipient families to verify need.

5. Additional information:

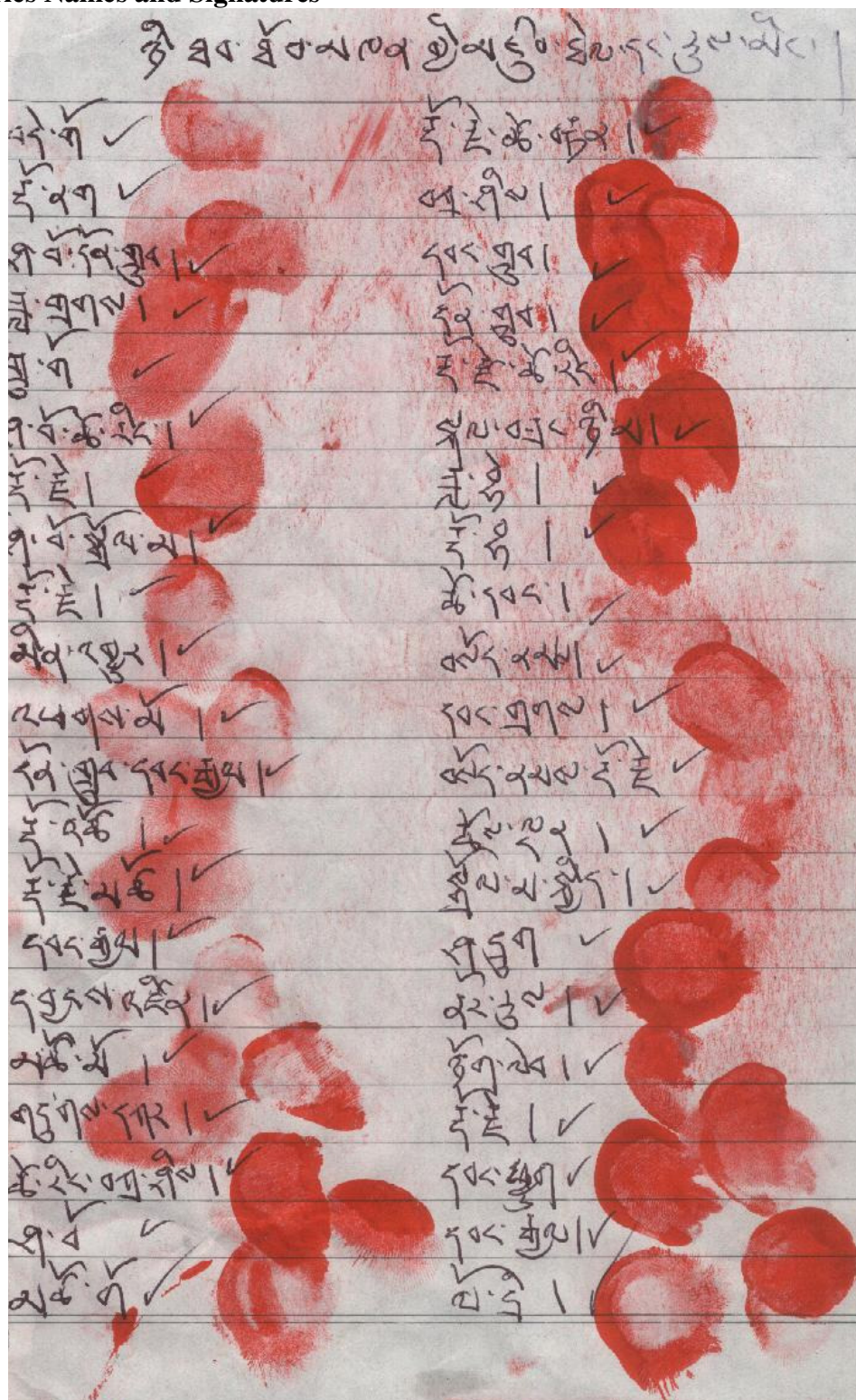
After being told the benefits regarding saving trees in the forest, people are more aware that cutting trees and digging shrubs around and in the mountain forests will bring floods and droughts to their fields.

Regarding health problems, the solar cookers are able to reduce the possibilities of women getting ill from working in smoky kitchens. Since cooking and boiling water are daily work in a family, people are more likely to neglect the harms that the smoke brings to their health. Illness related to the lungs is a typical illness among women who are often in smoky kitchens but they do not always think

that the smoky kitchen is the source of problem. Having a solar cooker reduces the amount of time of smoke exposure in a kitchen and thus the risk of getting lung-related illnesses are reduced.

For most households, firewood is relatively important during winter because it is the only way for to warm the homes and cook food. After receiving German Embassy supported solar cookers, villagers are able to save firewood they use during other seasons for winter.

6. Beneficiaries Names and Signatures



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7 Financial Accounting:

7,500 RMB purchased 50 solar cookers. Each village contributed 50 RMB for total of 2,500 RMB, which was used to buy 16 solar cookers. In total, this project enables to buy 66 solar cookers for 10,000 RMB.

ORIGINAL PROPOSAL

Botschaft der Bundesrepublik Deutschland

Peking Embassy of the Federal Republic of Germany

Questionnaire for applying funds for small scale projects at the German Embassy Beijing

申请由北京德国大使馆资助的小型技术合作项目的一系列问题

Name of the project: 65 solar cookers for Aujia Village

Who is applying for the funding?

Dongzhi Hangjie / Spencer
2005-2007 Preparation English Class
Tibetan Department
Qinghai Nationalities Teacher's College
Qinghai Normal University
Xining City, Qinghai Province 810008
PR China

Email address: spencerlucky@126.com

Phone number: 971 7320844

Who is responsible for carrying out the project?

Dongzhi Hangjie and the project committee are responsible for carrying out this project and they also will supervise the project management to see that the project goes well.

Email address: spencerlucky@126.com

Phone number: 973 8742430

Where is the project located ?

The project is located in Aujia Administrative Village, Kanbula Township, Jianzha County, Huangnan Tibetan Autonomous Prefecture, Qinghai Province, China.. It is about 50 km from the county capital and 160 km from Xining City, the capital of Qinghai. This village is 2,900 m above sea level and it has 96 households with about 600 villagers in total. Aujia Village is regarded as one of the most impoverished villages in the whole county. Although it is near a small town, the village itself is not well developed because the condition of the access road is remarkably bad. Also only a few people come to the village to sell things to the villagers. Every family has about 5 *mu* of fields that do not produce reliable yields because of drought. Water is in poor supply, partly due to extensive deforestation.

Does the (local) government agree with the project? Yes

What is the goal of the project?

- To save the money that people expend on buying coal and other fuels.
- To reduce illness that people, especially women, get from dusty and smoky kitchen.
- To provide a better chance for girls to get an education.

- To reduce the punishment that people get from cutting trees.
- Villagers will save firewood for the bitterly cold winters.
- Students have more spare time to do homework after school.
- To protect the environment.
- To reduce the school dropout rate of students because they will have to spend much less time collecting fuel once their families have a solar cooker.
- To make it convenient for elderly people to cook for themselves whilst younger people go out and work.
- To give students more time to study rather than collecting firewood after their classes.

What are the expected costs of this project? 50 Solar cookers/150 rmb= 7,500 rmb

What will be the contribution of the local population? Each family will contribute 50 RMB for each solar cooker. 50 solar cookers x 50 RMB = 2,500 rmb (15 solar cookers will be bought by the local contribution)

What is the expected timeframe for this project? Ten days.

- Project will start April 1, 2006 and be completed April 15, 2006.
- Poor families will be chosen on April 1, 2006.
- Solar cookers will be transported to the project site on April 11, 2006.
- Distribution of solar cookers will begin on April 12, 2006.
- The distribution will be completed on April 5, 2006.
- The final report will delivered by May 15, 2006.

Who will be responsible for the sustainability of this project? The solar cooker company will be responsible for repairing and replacing defective equipment within a 5 year period from initial delivery, and the villagers will be responsible for cleaning the solar cookers once a day.

Are resulting costs expected? No resulting costs are expected.

Are other donors/ organizations involved? None

Additional information:

Household Income: The average annual per person cash income of Aujia Village is about 150 RMB. Cash is earned mostly by selling vegetables and fruit. Villagers want to improve the condition of their houses, but this is prevented by the high price of bricks and timber that they need. Although the condition of families is very poor, parents send their children to school for an education, in order to better ensure their children's future. The main sources of food are locally grown wheat, barely, potatoes, and rapeseed.

Education: Over the years, due to the efforts of villagers, eight students have graduated from university and gotten government jobs. They have volunteered to teach the students during the holidays and show people how to use newly purchased and modern things. This helps villagers understand the importance of education and motivates them to send their children for an education. If the village wants to buy something essential to the development of the village, the graduates are the first to contribute money and are willing to join community work. Although education has been improved in certain impoverished areas, such measures have not been implemented in Aujia Village. Children in this village are curious and want to gain knowledge in school, but it is prevented by the condition of the school, which has only three grades in total. Furthermore, not only the children from

Aujia Village attend this school but also some other children from mountain villages near Aujia Village.

Life condition: Because there is no place to herd sheep, most families have no livestock. Moreover, villagers have difficulties in being warm in winter. Villagers have no wood to burn because people are not allowed to cut trees. Villagers cannot afford coal because it is too expensive: 1 ton of coal costs about 300 RMB. All the fields are irrigated in Aujia Village but the water supply is not dependable because several villages rely on the same water source. Aujia Village is the last to get water, due to their location. In addition, the source of water is very limited. Furthermore, Aujia Village is treated unfairly when there is a distribution from the government because Aujia Village lacks educated people or government officials to vouch for it.

Medical care: People in Aujia Village must go to town if they have health problems. However, they are not treated equally, because the doctors think the villagers are uneducated and lacking in intelligence. Consequently, villagers need to go to the provincial capital where medical care is better but very expensive. For these reasons, villagers prefer to invite monks to chant scripture, but it does not help much.

Communication: Because the village is isolated from the town by distance, communication is poor:

1. About half of the women cannot use a TV.
2. Most villagers don't know what a computer is.
3. Most villagers don't know who the county leader is.

Transportation: The entire road to the village is an uneven dirt track. Most people transport their things by mules but a few use old vehicles.

Problems villagers face:

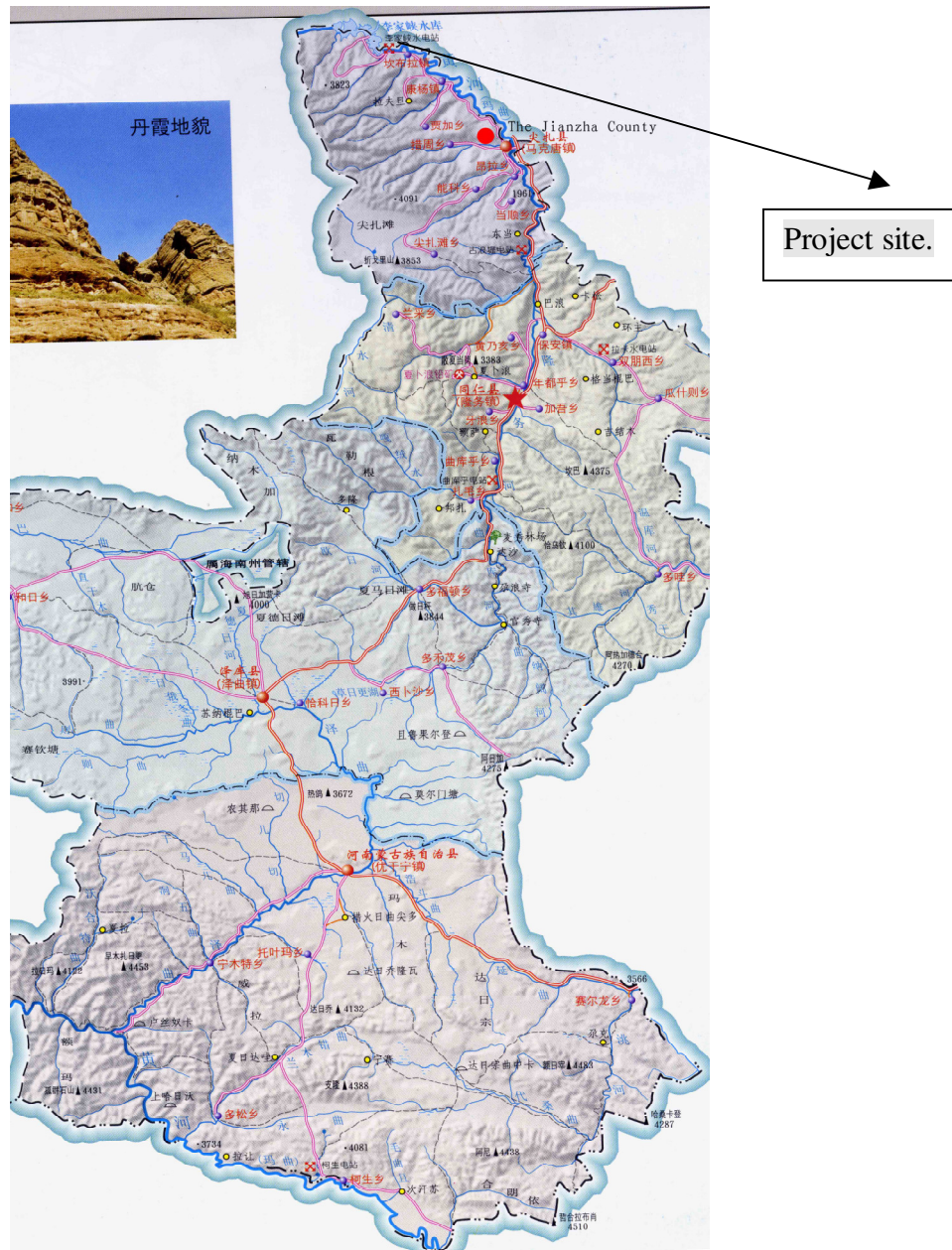
- Some girls have to drop out of school in order to help their parents collect firewood, which is used for cooking food and heating the houses during the winter.
- Many women get lung illnesses from cooking in the smoky kitchens all the time.
- Villagers cannot afford to buy coal because it is very expensive.
- People get firewood by digging ground, which is very harmful to the environment.
- Villagers also dig ground at the water origin, which contributes to erosion.
- Students need to collect firewood after class and have no time to do their homework. As a result they fail classes sometimes.
- People go to cut trees for firewood by risking a serious punishment from the government; cutting trees has been forbidden since 1997.
- Elderly people can't cook for themselves when younger people are out, because they are too old to make a fire and make bread.
- Villagers lack firewood to use in both cooking and keeping their houses warm.

Expected effects:

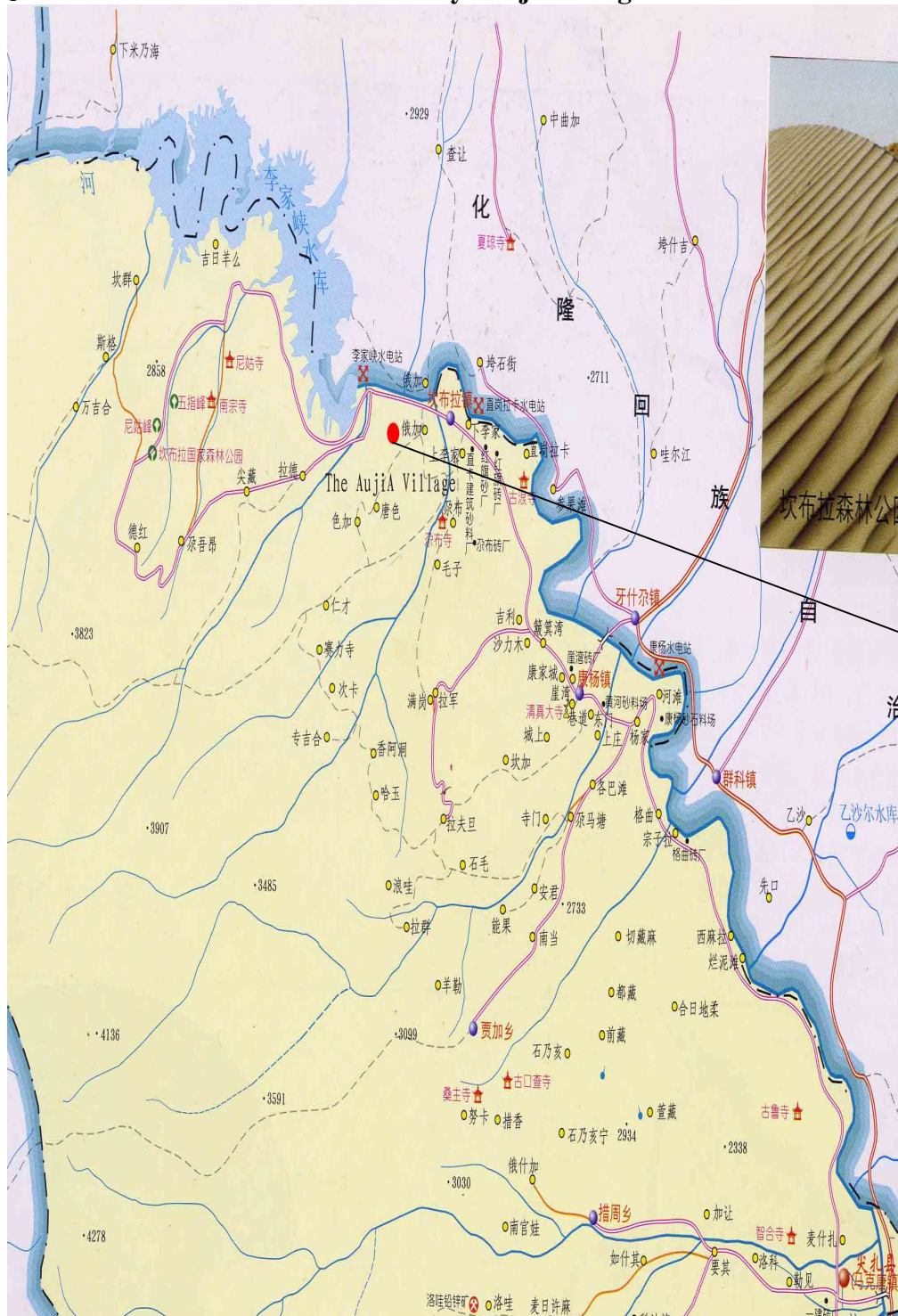
- *Health care:* this project will reduce women's possibilities of getting illness by providing a new, smoke-free cooking environment.

- *Environment Conservation*: If funded, the project will result in people going to cut trees and dig bush roots less frequently.

Detailed map of the project location: Huangnan Tibetan Autonomous Prefecture.



Jianzha Tibetan Autonomous County--Aujia Village



Aujia Village